REMARKS

Claims 1-5 and 7 are all the claims pending in the application.

Review and reconsideration on the merits are respectfully requested.

Applicants' appreciate the Examiner's accepting the request for continued examination under 37 C.F.R. 1.114, which was filed in this application on December 18, 2002.

Claim Rejections - 35 U.S.C. § 103

In the present Official Action, the Examiner has maintained all of the previous rejections of Claims 1-5 and 7 under 35 U.S.C. §103(a), citing the same references from the previous Official Action dated August 23, 2002. The Examiners' rejections are listed below, but for purposes of brevity, the Examiner's remarks are not restated herein.

(a) Claims 1 and 3 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Bresson (5,205,213) in view of van der Velden (4,554,040) and Songer (5,577,443) as set forth in the Official Action.

(b) Claim 2 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Bresson in view of van der Velden and Songer as applied to Claim 1, and further in view of Clerx et al (3,937,919).

(c) Claim 4 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Bresson in view of van der Velden and Songer as applied to Claim 1, and further in view of Jinzai et al (5,717,988).

(d) Claim 5 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Bresson in view of van der Velden and Songer as applied to Claim 1, and further in view of Lane et al (5,983,799).

(e) Claim 7 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Bresson in view of van der Velden and Songer as applied to Claim 1, and further in view of White et al (4,089,265).

Applicants respond as follows.

In order to advance prosecution and to more clearly state their claimed invention, Applicants amend Claim 1 to recite that:

> the roller member comprises a metallic core roller and an unshrinkable sleeve which is heat-welded directly onto the surface of the core roller into which the unshrinkable sleeve is pressed

Support for the amendment can be found, for example, at page 5, lines 12-27 and Fig. 1 of the specification as originally filed. For example, as described at page 5 of the specification, the sleeve 4 is joined with the core roller 3 without application of an adhesive and without intervention of an adhesive layer. No new matter has been added. Accordingly, Applicants request entry of the amendment.

Applicants amend Claim 1 to recite that the unshrinkable sleeve is heat-welded directly onto the surface of the core roller to more clearly distinguish the claimed invention over the disclosures and teachings of Bresson, van der Velden and Songer, where van der Velden discloses heat-welding a sheet (sleeve) of a thermoplastic elastomeric composition onto the surface of a cylinder via a multi-filament jacket. This structural feature clearly distinguishes over the prior art.

In comparison to the claimed invention, van der Velden discloses a cylindrical supporting surface (4) having a knitted fabric (2') disposed thereon. A sheet of thermoplastic elastomeric composition (5) is applied thereon through heat and pressure so as to obtain a fusion of the sheet with the fabric. See Abstract and col. 3, lines 36-51. In other words, van der Velden discloses a metallic core roller (cylinder) and a sleeve (sheet) provided on the surface of the core roller where the sleeve is not heat-welded directly onto the surface of the core roller but is instead provided via a multifilament jacket.

The structure of the claimed invention which results from pressing the core roller directly into an unshrinkable sleeve differs from the prior art where, for example, a sleeve is adhered or heat-welded onto the surface of a cylinder. Therefore, the present invention differentiates from the prior art in that the sleeve of this invention is being heat-welded directly onto the surface of the core roller as is now made more clear through the amendment to Claim 1. As discussed at pages 5-6 of the specification, this feature of the invention enhances efficiency in transfer of toner and eliminates the need for extra steps. There is nothing in the prior art which teaches or suggests the roller member of the invention where a metallic core roller is pressed into an unshrinkable sleeve and the sleeve is directly heat-welded onto the surface of the core roller.

For at least the same reasons as stated above, Applicants submit that the dependent Claims 2-5 and 7 are also patentably distinct from the cited secondary references.

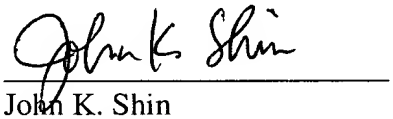
Accordingly, in view of the amendment and remarks to distinguish the structure of the claimed invention from the prior art, withdrawal of all rejections and allowance of Claims 1-5 and 7 is earnestly solicited.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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Date: April 11, 2003

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

1. (Three times amended) A roller member, which is used in OA apparatuses for imparting a charge, eliminating a charge, or removing toner adhered onto the surface of a transfer belt or a transfer-conveyor belt, [comprising a metallic core roller and an unshrinkable sleeve, where the core roller is pressed at the unshrinkable sleeve and the sleeve is heat-welded onto the surface of the core roller, which] wherein the roller member comprises a metallic core roller and an unshrinkable sleeve which is heat-welded directly onto the surface of the core roller into which the unshrinkable sleeve is pressed, wherein the unshrinkable sleeve is formed from an elastomer material and has a Young's modulus of 120-200 Mpa and a thickness of 30-200 μm.